



## Complete Summary

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### GUIDELINE TITLE

Pediatric weight management evidence-based nutrition practice guideline.

### BIBLIOGRAPHIC SOURCE(S)

American Dietetic Association (ADA). Pediatric weight management evidence-based nutrition practice guideline. Chicago (IL): American Dietetic Association (ADA); 2007 Jun. Various p. [458 references]

### GUIDELINE STATUS

This is the current release of the guideline.

The guideline will undergo a complete revision every three to five years.

## COMPLETE SUMMARY CONTENT

SCOPE  
METHODOLOGY - including Rating Scheme and Cost Analysis  
RECOMMENDATIONS  
EVIDENCE SUPPORTING THE RECOMMENDATIONS  
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS  
CONTRAINDICATIONS  
QUALIFYING STATEMENTS  
IMPLEMENTATION OF THE GUIDELINE  
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT  
CATEGORIES  
IDENTIFYING INFORMATION AND AVAILABILITY  
DISCLAIMER

## SCOPE

### DISEASE/CONDITION(S)

Pediatric overweight and obesity

### GUIDELINE CATEGORY

Counseling  
Evaluation  
Management  
Treatment

### CLINICAL SPECIALTY

Family Practice  
Nutrition  
Pediatrics

## **INTENDED USERS**

Dietitians  
Physicians  
Students

## **GUIDELINE OBJECTIVE(S)**

### **Overall Objectives**

- To help dietetic practitioners, patients and consumers make shared decisions about health care choices in specific clinical circumstances
- To provide evidence-based recommendations for pediatric weight management that reduce adiposity, prevent further weight gain, and maintain improvements in adiposity over a prolonged period

### **Specific Objectives**

- To define evidence-based recommendations for registered dietitians (RDs) that are carried out in collaboration with other health care providers
- To guide practice decisions that integrate medical, nutritional, and behavioral elements
- To promote consistency of practice among RDs
- To promote self-management strategies that empower the patient and family to take responsibility for day-to-day management, and to provide the RD with data to make recommendations to adjust medical nutrition therapy or recommend other therapies to achieve target clinical outcomes
- To enhance the quality of life for the patients and their families by utilizing customized strategies based on the individual's preferences, lifestyle, and goals
- To develop content for intervention that can be tested for impact on clinical outcomes
- To define the highest quality of care within cost constraints of the current health care environment and family situation

## **TARGET POPULATION**

- Children (6 to 12 years) and adolescents (13 to 18 years) with pediatric obesity (childhood obesity is defined as body mass index [BMI]  $\geq 95^{\text{th}}$  percentile by child age)
- Population groups, medical conditions, or coexisting diagnoses, where the pediatric weight management recommendations may be indicated, include:
  - Coronary heart disease
  - Diabetes mellitus (type 2)
  - Gynecological abnormalities
  - Hypertension (HTN)
  - Metabolic syndrome

- Sleep apnea
- Stress incontinence

**Note:** This guideline is not intended:

- For treating obesity among children under five years of age
- For prevention of child and adolescent obesity
- As a replacement for interventions typically within the scope of practice of an athletic trainer or behavioral or psychological professional, for which adequate training in physical activity interventions and behavioral therapy is necessary

## **INTERVENTIONS AND PRACTICES CONSIDERED**

### **Evaluation**

1. Referral to a registered dietitian
2. Nutrition assessment
  - Biochemical data, medical tests and procedures, including relevant laboratory tests
  - Anthropometric measurements including height, weight, body mass index (BMI) and waist circumference
  - Physical examination
  - Food and nutrition history, including:
    - Measurement or estimation of energy needs
    - Comprehensive diet history, including current dietary intake and receptivity to change
    - Family history and involvement
    - Physical activity patterns
    - Psychosocial and economic issues impacting nutrition therapy
  - Client history, including
    - Medical history
    - Comorbid conditions and need for additional modifications in nutrition care plan

### **Management/Treatment**

1. Individualized nutrition prescription
  - Goals and intervention strategies
    - Comprehensive, multicomponent weight management program
  - Nutrition counseling and education
  - Dietary interventions
    - Energy restriction
    - Altered macronutrient diets
    - Specific foods
  - Physical activity interventions
  - Behavioral interventions
  - Family influences and participation
  - Pharmacotherapy (weight loss medications) or bariatric surgery, when indicated
2. Monitoring and evaluation

**Note:** The following interventions were considered but not recommended:

- Very low carbohydrate diet for long-term management of pediatric overweight
- Protein Sparing Modified Fast Diet for long-term weight management for overweight children or adolescents
- Very low fat diet (<20% of total daily energy) for use in pediatric weight management

## **MAJOR OUTCOMES CONSIDERED**

- Morbidity
- Mortality
- Quality of life
- Weight loss
- Body mass index percentile
- Adiposity
- Maintenance of weight loss
- Percentage of individuals who meet their treatment goal
- Cost of medical care

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

Hand-searches of Published Literature (Primary Sources)  
Searches of Electronic Databases

### **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

Searches of PubMed and hand searches of other relevant literature were performed on the following topics:

- Family involvement in treatment of childhood obesity
- Behavioral intervention approaches
- Daily intervention patterns
  - Regulating energy intake
  - Eating patterns
  - Macronutrient composition
  - Specific foods
- Physical activity interventions
- Weight loss drugs in treating obesity
- Weight loss surgery in children and adolescents

General Exclusion Criteria

As a general rule, studies are excluded if the:

- Study sample size is less than 10 in each treatment group
- Drop-out rate was >20%

## Inclusion Criteria

- Study design preferences: clinical trials preferred
- Limited to articles in English

The American Dietetic Association (ADA) has determined that for narrowly focused questions dealing with therapy or treatment, six well designed randomized controlled trials that demonstrate similar results is sufficient to draw a conclusion.

No one study design was preferred for all questions. The preferred study design depended on the type of question. The ADA uses the following principles in the table below for identifying preferred study design.

Type of Question	Preferred Study Designs (in order of preference)
Diagnosis questions	Sensitivity & specificity of diagnostic test Cross-sectional study
Etiology, causation, or harm questions	Prospective cohort Case control study Cross-sectional study
Therapy and prevention questions	Randomized controlled trial Nonrandomized trial
Natural history and prognosis questions	Cohort study

## NUMBER OF SOURCE DOCUMENTS

Not stated

## METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

## RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

**Grading the Strength of the Evidence for a Conclusion Statement or Recommendation Conclusion Grading Table**

Strength of Evidence Elements	Grade I Good/Strong	Grade II Fair	Grade III Limited/Weak	Grade IV Expert Opinion Only	Grade V Grade I Assignment
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<b>Strength of Evidence Elements</b>	<b>Grade I Good/Strong</b>	<b>Grade II Fair</b>	<b>Grade III Limited/Weak</b>	<b>Grade IV Expert Opinion Only</b>	<b>Grade V Expert Opinion Only</b>
<b>Quality</b> <ul style="list-style-type: none"> <li>Scientific rigor/validity</li> <li>Considers design and execution</li> </ul>	Studies of strong design for question  Free from design flaws, bias and execution problems	Studies of strong design for question with minor methodological concerns  OR  Only studies of weaker study design for question	Studies of weak design for answering the question  OR  Inconclusive findings due to design flaws, bias or execution problems	No studies available  Conclusion based on usual practice, expert consensus, clinical experience, opinion, or extrapolation from basic research	No evidence that pertains to question being addressed
<b>Consistency</b>  Of findings across studies	Findings generally consistent in direction and size of effect or degree of association, and statistical significance with minor exceptions at most	Inconsistency among results of studies with strong design  OR  Consistency with minor exceptions across studies of weaker designs	Unexplained inconsistency among results from different studies  OR  Single study unconfirmed by other studies	Conclusion supported solely by statements of informed nutrition or medical commentators	NA
<b>Quantity</b> <ul style="list-style-type: none"> <li>Number of studies</li> <li>Number of subjects in studies</li> </ul>	One to several good quality studies  Large number of subjects studies  Studies with negative results having sufficiently large sample size for adequate statistical power	Several studies by independent investigators  Doubts about adequacy of sample size to avoid Type I and Type II error	Limited number of studies  Low number of subjects studies and/or inadequate sample size within studies	Unsubstantiated by published studies	Relevant studies have not been done
<b>Clinical Impact</b>	Studied	Some doubt	Studies	Objective data	Indicate

<b>Strength of Evidence Elements</b>	<b>Grade I Good/Strong</b>	<b>Grade II Fair</b>	<b>Grade III Limited/Weak</b>	<b>Grade IV Expert Opinion Only</b>	<b>Grade V Expert Opinion Only</b>
<ul style="list-style-type: none"> <li>Importance of studies outcomes</li> <li>Magnitude of effect</li> </ul>	<p>outcome relates directly to the question</p> <p>Size of effect is clinically meaningful</p> <p>Significant (statistical) difference is large</p>	<p>about the statistical or clinical significance of effect</p>	<p>outcome is an intermediate outcome or surrogate for the true outcome of interest</p> <p>OR</p> <p>Size of effect is small or lacks statistical and/or clinical significance</p>	<p>unavailable</p>	<p>area for future research</p>
<p><b>Generalizability</b></p> <p>To population of interest</p>	<p>Studied population, intervention and outcomes are free from serious doubts about generalizability</p>	<p>Minor doubts about generalizability</p>	<p>Serious doubts about generalizability due to narrow or different study population, intervention or outcomes studied</p>	<p>Generalizability limited to scope of experience</p>	<p>NA</p>

This grading system was based on the grading system from: Greer N, Mosser G, Logan G, Wagstrom Halaas G. *A practical approach to evidence grading. Jt Comm. J Qual Improv.* 2000; 26:700-712. In September 2004, The ADA Research Committee modified the grading system to this current version.

## **METHODS USED TO ANALYZE THE EVIDENCE**

Systematic Review with Evidence Tables

## **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

### **Step 1: Formulate the question**

Specify a question in a defined area of practice; or state a tentative conclusion or recommendation that is being considered. Include the patient type and special needs of the target population involved the alternatives under consideration, and the outcomes of interest.

### **Step 2: Gather and classify evidence reports**

Conduct a systematic search of the literature to find evidence related to the question, gather studies and reports, and classify them by type of evidence. Classes differentiate primary reports of new data according to study design, and distinguish them from reports that are a systematic review and synthesis of primary reports.

### **Step 3: Critically appraise each report**

Review each report for relevance to the question and critique for scientific validity. Abstract key information from the report and assign a code to indicate the quality of the study by completing quality criteria checklist.

### **Step 4: Summarize evidence in a narrative and an overview table**

Combine findings from all reports in a table that pulls out the important information from the article worksheets. Write a brief narrative that summarizes and synthesizes the information abstracted from the articles that is related to the question asked.

### **Step 5: Develop a conclusion statement and grade the strength of evidence supporting the conclusion**

Develop a concise conclusion statement (the answer to the question), taking into account the synthesis of all relevant studies and reports, their class and their quality ratings. Assign a grade to indicate the overall strength or weakness of evidence informing the conclusion statement.

## **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Expert Consensus

### **DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS**

The expert work group, which includes practitioners and researchers with a depth of experience in the specific field of interest, develops the disease-specific guideline. The guideline development involves the following steps.

#### **Review Evidence Based Conclusions**

The work group meets to review the materials resulting from the evidence analysis, which may include conclusion statements, evidence summaries, and evidence worksheets.

#### **Formulate Recommendations for the Guideline Integrating Conclusions from Evidence Analysis**

The work group uses an expert consensus method to formulate recommendations, taking into account the following:

- Recommendations for what the dietitian should do and why

- Rating of recommendations based on strength of supporting evidence
- Label of Conditional (clearly define a specific situation) or Imperative (broadly applicable to the target population without restraints on the pertinence)
- Risks and Harms of Implementing the Recommendations, including potential risks, harms, or adverse consequences
- Conditions of Application, including organizational barriers or conditions that may limit application
- Potential Costs Associated with Application
- Recommendation Narrative
- Recommendation Strength Rationale, evidence strength and methodological issues
- Minority Opinions, when the expert working group cannot reach consensus on a recommendation
- Supporting Evidence

## RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

### Criteria for Recommendation Rating

Statement Rating	Definition	Implication for Practice
<b>Strong</b>	A <b>Strong</b> recommendation means that the workgroup believes that the benefits of the recommended approach clearly exceed the harms (or that the harms clearly exceed the benefits in the case of a strong negative recommendation), and that the quality of the supporting evidence is excellent/good (grade I or II)*. In some clearly identified circumstances, strong recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits strongly outweigh the harms.	Practitioners should follow a <b>Strong</b> recommendation unless a clear and compelling rationale for an alternative approach is present.
<b>Fair</b>	A <b>Fair</b> recommendation means that the workgroup believes that the benefits exceed the harms (or that the harms clearly exceed the benefits in the case of a negative recommendation), but the quality of evidence is not as strong (grade II or III)*. In some clearly identified circumstances, recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated	Practitioners should generally follow a <b>Fair</b> recommendation but remain alert to new information and be sensitive to patient preferences.

Statement Rating	Definition	Implication for Practice
	benefits outweigh the harms.	
<b>Weak</b>	A <b>Weak</b> recommendation means that the quality of evidence that exists is suspect or that well-done studies (grade I, II, or III)* show little clear advantage to one approach versus another.	Practitioners should be cautious in deciding whether to follow a recommendation classified as <b>Weak</b> , and should exercise judgment and be alert to emerging publications that report evidence. Patient preference should have a substantial influencing role.
<b>Consensus</b>	A <b>Consensus</b> recommendation means that Expert opinion (grade IV)* supports the guideline recommendation even though the available scientific evidence did not present consistent results, or controlled trials were lacking.	Practitioners should be flexible in deciding whether to follow a recommendation classified <b>Consensus</b> , although they may set boundaries on alternatives. Patient preference should have a substantial influencing role.
<b>Insufficient Evidence</b>	An <b>Insufficient Evidence</b> recommendation means that there is both a lack of pertinent evidence (grade V)* and/or an unclear balance between benefits and harms.	Practitioners should feel little constraint in deciding whether to follow a recommendation labeled as <b>Insufficient Evidence</b> and should exercise judgment and be alert to emerging publications that report evidence that clarifies the balance of benefit versus harm. Patient preference should have a substantial influencing role.

\*Conclusion statements are assigned a grade based on the strength of the evidence. Grade I is good; grade II, fair; grade III, limited; grade IV signifies expert opinion only and grade V indicates that a grade is not assignable because there is no evidence to support or refute the conclusion. The evidence and these grades are considered when assigning a rating (Strong, Fair, Weak, Consensus, Insufficient Evidence - see chart above) to a recommendation.

Adapted by the American Dietetic Association from the American Academy of Pediatrics, Classifying Recommendations for Clinical Practice Guideline, Pediatrics. 2004;114;874-877.

## COST ANALYSIS

An analysis was performed of potential costs associated with application of the recommendations in the guideline.

## METHOD OF GUIDELINE VALIDATION

External Peer Review  
Internal Peer Review

## DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Each guideline is reviewed internally and externally using the AGREE (Appraisal of Guidelines for Research and Evaluation) instrument as the evaluation tool. The external reviewers consist of a multidisciplinary group of individuals (may include dietitians, doctors, psychologists, pharmacists, nurses, etc.). The review is done electronically. The guideline is adjusted by consensus of the expert panel and approved by American Dietetic Association's Evidence-Based Practice Committee prior to publication on the Evidence Analysis Library (EAL).

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

***Note from the National Guideline Clearinghouse (NGC) and the American Dietetic Association (ADA):*** Recommendations for the determination of energy expenditure and energy requirements for children and adolescents draw from 2005 US Institutes of Medicine *Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids (Macronutrients)* (available online at <http://www.nap.edu/catalog/10490.html> -- especially Chapter 5 and Appendix I).

Ratings for the strength of the recommendations (Strong, Fair, Weak, Consensus, Insufficient Evidence), conclusion grades (I-V), and statement labels (Conditional versus Imperative) are defined at the end of "Major Recommendations."

### **Pediatric Weight Management (PWM) Comprehensive, Multicomponent Weight Management Program for Treating Childhood Overweight**

#### **PWM: Multicomponent Program**

Interventions to reduce pediatric overweight should be multicomponent and include diet, physical activity, nutrition counseling, and parent/caregiver participation. A large body of strong research indicates that clinically supervised, multicomponent weight management programs are more successful than single component programs for short-term and longer-term (>1 year) improvement in child and adolescent overweight.

**Strong, Imperative**

#### **Recommendation Strength Rationale**

- **Conclusion statements are Grades I and II**

### **Pediatric Weight Management (PWM) Treating Overweight in Children Ages 2-5**

#### **PWM: Children Ages 2-5 Years Old**

Weight maintenance is generally recommended in overweight children 2-5 years old within a multicomponent weight management intervention with active participation of parent/caregiver. Weight loss may be recommended when the child has serious medical complications. Research was not identified on the efficacy and safety of weight loss interventions among children ages 2-5.

**Consensus**, Imperative

#### **Recommendation Strength Rationale**

- **No evidence grade given**

#### **Pediatric Weight Management (PWM) Assessing Foods and Pediatric Overweight**

##### **PWM: Foods Associated with an Increased Risk of Overweight**

Dietary factors that may be associated with an **increase in the risk of overweight** and should be included in Nutrition Assessment are: increased total dietary fat intake and increased calorically sweetened beverages. American Dietetic Association (ADA) Evidence Analysis has shown that these factors are positively associated with childhood overweight.

**Strong**, Imperative

##### **PWM: Foods Associated with a Decreased Risk of Overweight**

Dietary factors that may be associated with a **decrease in the risk of overweight** and should be included in Nutrition Assessment are: increased fruit and vegetable intake. ADA Evidence Analysis has shown that these factors may be negatively associated with childhood overweight.

**Strong**, Imperative

##### **PWM: Assessment - Total Energy Intake and 100% Fruit Juice**

Dietitians should be aware of the research on the following dietary factors when carrying out their Nutrition Assessment: reported total energy intake and 100% fruit juice intake. ADA Evidence Analysis has found that these factors may or may not be related to pediatric overweight, but the research is still unclear on the relationship.

**Fair**, Imperative

##### **PWM: Assessment - Dairy and Calcium**

Dietitians should be aware of the observational research that indicates an inadequate intake of dairy and calcium may be related to an increase in the risk of pediatric overweight. Consideration should be given to including dairy and calcium intake as part of the nutrition assessment.

**Fair**, Imperative

#### **Recommendation Strength Rationale**

- **Conclusion statements are Grades II and III**

#### **Pediatric Weight Management (PWM) Assessing Child and Family Diet Behaviors in Pediatric Overweight**

##### **PWM: Family Diet Behaviors - Increased Risk of Overweight**

Child and family diet behavior factors that may be associated with an **increase in the risk of overweight** and should be included in Nutrition Assessment are: parental restriction of highly palatable foods, consumption of food away from home, increased portion size of meals, breakfast skipping. ADA Evidence Analysis has shown that these factors are positively associated with childhood overweight.

**Fair**, Imperative

##### **PWM: Family Diet Behaviors - Relationship Unclear**

Dietitians should be aware of the research on the following child and family diet behavior factors when carrying out their Nutrition Assessment: parental encouragement/pressure to eat, parental control over child's dietary intake, meal frequency, snacking frequency or snack food intake, and using food as a reward. ADA Evidence Analysis has found that these factors **may not be related to pediatric overweight, or that the research is still unclear on the relationship.**

**Fair**, Imperative

#### **Recommendation Strength Rationale**

- **Conclusion statements are Grades II and III**

#### **Pediatric Weight Management (PWM) Assessing Physical Activity and Sedentary Behaviors**

##### **PWM: Behavior - Increase the Risk of Pediatric Overweight**

Physical activity and sedentary behavior factors that may be associated with an **increase in the risk of overweight** and should be included in Nutrition Assessment are: excessive television viewing and excessive use of video games. ADA Evidence Analysis has shown that these factors are positively associated with childhood overweight.

**Fair**, Imperative

##### **PWM: Behavior - Decrease the Risk of Pediatric Overweight**

Physical activity and sedentary behavior factors that may be associated with a **decrease in the risk of overweight** and should be included in Nutrition Assessment are: regular physical activity and sports participation. ADA Evidence Analysis has shown that these factors may be negatively associated with childhood overweight.

**Fair**, Imperative

#### **Recommendation Strength Rationale**

- **Conclusion statements are Grades II and III**

#### **Pediatric Weight Management (PWM) Determination of Total Energy Expenditure**

##### **PWM: Option for Determining Energy Expenditure**

If possible, resting metabolic rate (RMR) should be measured (e.g., indirect calorimetry). If RMR cannot be measured, then the equations for estimating total energy expenditure in overweight youth provided in the *2005 US Institutes of Medicine "Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids (Macronutrients)"* may be used. Estimated energy needs should be based on Total Energy Expenditure (TEE).

Refer to the original guideline document for types of TEE indices and calculations.

**Consensus**, Conditional

#### **Recommendation Strength Rationale**

- **No evidence grade given**

#### **Pediatric Weight Management (PWM) Assessing Family Climate Factors**

##### **PWM: Family Climate - Increased Risk of Overweight**

Family climate factors that may be associated with an **increase in the risk of overweight** and should be included in Nutrition Assessment are: parental dietary disinhibition and restraint, negative aspects of family functioning (such as lack of parental support or over-possessiveness), and parental concern about child's weight status. ADA Evidence Analysis has shown that these factors are positively associated with childhood overweight.

**Fair**, Imperative

##### **PWM: Family Climate - Decreased Risk of Overweight**

Family climate factors that may be associated with a **decrease in the risk of overweight** and should be included in Nutrition Assessment are: positive aspects of family functioning (such as family cohesion, expressiveness, democratic style,

parental support and cognitive stimulation at home). ADA Evidence Analysis has shown that these factors may be negatively associated with childhood overweight.

**Fair**, Imperative

#### **PWM: Family Climate - Relationship Unclear**

Dietitians should be aware of the research on the following family climate factors when carrying out their Nutrition Assessment: household food insecurity. ADA Evidence Analysis has found that these factors **may not be related to pediatric overweight, or that the research is still unclear on the relationship.**

**Fair**, Imperative

#### **Recommendation Strength Rationale**

- **Conclusion statements are Grades II and III**

#### **Pediatric Weight Management (PWM) Nutrition Prescription in the Treatment of Pediatric Overweight**

##### **PWM: Nutrition Prescription**

A nutrition prescription should be formulated as part of the dietary intervention in a multicomponent pediatric weight management program. The exact specification of nutrients and energy is often translated into a specific eating plan. Nutrition interventions are selected based on the nutrition prescription. Research shows that when individualized nutrition prescription is included, improvements in weight status in children and adolescents are consistent. When an individualized nutrition prescription is not included, results are less consistent.

**Strong**, Imperative

#### **Recommendation Strength Rationale**

- **Conclusion statements are Grades I, II and III**

#### **Pediatric Weight Management (PWM) Energy Restricted Diets**

##### **PWM: Energy-Restricted Diets - Children 6 to 12 years Old**

If energy restriction is appropriate based on the registered dietitian's professional judgment, then a **balanced macronutrient diet** that contains no fewer than 900 kilocalories (kcal) per day is recommended to improve weight status within a multicomponent pediatric weight management program in **children ages 6 -12** who are medically monitored. Research indicates that balanced macronutrient diets at 900 to 1200 kcal per day are associated with both short term and longer term (>1 year) improved weight status and body composition among 6 to 12-year-old children.

**Strong**, Conditional

**PWM: Energy-Restricted Diets - Adolescents**

If energy restriction is appropriate based on the registered dietitian's professional judgment, then a balanced macronutrient diet that contains no fewer than 1200 kcal per day is recommended to improve weight status within a multicomponent pediatric weight management program in **adolescents ages 13-18** who are medically monitored. Research indicates that energy restricted balanced macronutrient diets no lower than 1200 kcal per day are associated with both short term and longer term (>1 year) improved weight status and body composition among 13 to 18-year-old adolescents.

**Strong**, Conditional

**Recommendation Strength Rationale**

- **Conclusion statements are Grade I**

**Pediatric Weight Management (PWM) Reduced Glycemic Load Diet**

**PWM: Reduced Glycemic Load Diet - Children 6 to 12 Years**

If an ad libitum reduced glycemic load diet is selected for use in **children (age 6-12)**, then this diet could be used to produce modest, short term improvement in weight status. Limited research shows that an ad libitum reduced glycemic load diet results in short term improvement in weight status in this age group.

**Weak**, Conditional

**PWM: Reduced Glycemic Load Diet - Adolescents**

If an ad libitum reduced glycemic load diet is selected for use in **adolescents (age 13-18)**, then this diet could be used to produce modest, short term and longer term improvement in weight status and body composition. Limited research shows that an ad libitum reduced glycemic load diet results in short term improvement in weight status and body composition in this age group. One study shows weight status improvement at 1 year.

**Fair**, Conditional

**Recommendation Strength Rationale**

- **Conclusion statements are Grade III**

**Pediatric Weight Management (PWM) Very Low Carbohydrate Diet**

**PWM: Very Low Carbohydrate Diet - Adolescents**

If a low carbohydrate diet is selected for use in adolescents, then it is recommended for short term (up to 12 weeks) use. The use of an ad libitum very low carbohydrate diet which is defined as a diet containing 20 to 60 grams of carbohydrates to treat overweight adolescents has shown short-term improvement in weight status. However, due to the lack of evidence, it is not recommended for long-term treatment of pediatric overweight.

**Weak, Conditional**

#### **Recommendation Strength Rationale**

- **No evidence grade given**

#### **Pediatric Weight Management (PWM) Using Protein Sparing Modified Fast Diets for Pediatric Weight Loss**

##### **PWM: Protein Sparing Modified Fast Diets: Short-term Treatment**

If overweight (>120% ideal body weight [IBW]) children and adolescents with serious medical complications would benefit from rapid weight loss, then a Protein Sparing Modified Fast Diet (PSMF) could be utilized in a short-term intervention (typically 10 weeks) under the supervision of a multidisciplinary team of healthcare providers who specialize in pediatric overweight. Research shows that short term use of a PSMF brings about short term and longer term improvement in weight status and body composition when part of a medically supervised, multicomponent program.

**Weak, Conditional**

##### **PWM: Protein Sparing Modified Fast Diets: Long-term Treatment**

The Protein Sparing Modified Fast Diet is not recommended for long-term weight management for overweight children or adolescents. There are few well designed studies to support the use of this intervention for longer than 10 weeks.

**Weak, Imperative**

#### **Recommendation Strength Rationale**

- **Conclusion statements are Grades III and V**

#### **Pediatric Weight Management (PWM) Very Low Fat Diet (Less than 20% Daily Energy Intake from Fat)**

##### **PWM: Very Low Fat Diet**

Use of a very low fat diet (<20% of total daily energy) is not recommended for use in pediatric weight management. The efficacy of a very low fat diet defined as <20% of total daily energy intake from fat in the treatment of pediatric overweight has not been studied.

**Insufficient Evidence**, Imperative

**Recommendation Strength Rationale**

- **Conclusion statement is Grade V**

**Pediatric Weight Management (PWM) Nutrition Education in the Treatment of Pediatric Overweight**

**PWM: Tailor Nutrition Education to Nutrition Prescription**

In a multicomponent program, if there is a nutrition diagnosis for food and nutrition-related knowledge deficit, then Nutrition education should be tailored to the nutrition prescription. Research shows that if nutrition education is not tailored to nutrition prescription, improvement in weight status is not consistent.

**Fair**, Conditional

**Recommendation Strength Rationale**

- **Conclusion statements are Grades I, II, and III**

**Pediatric Weight Management (PWM) Nutrition Counseling and Behavior Therapy Strategies in the Treatment of Overweight in Children and Adolescents**

**PWM: Nutrition Counseling**

Nutrition counseling delivered by a registered dietitian (RD) (which is inclusive of goal setting, self monitoring, stimulus control, problem solving, contingency management, cognitive restructuring, use of incentives and rewards, and social supports) should be a part of the behavior therapy component of a multicomponent pediatric weight management program.

**Consensus**, Imperative

**PWM: Behavioral Therapy**

Behavior therapy strategies should be included as part of a multicomponent pediatric weight management program. Research shows that when behavior therapy strategies are included within the context of a multidisciplinary team, weight status and body composition improve.

**Strong**, Imperative

**PWM: Family-Based Counseling**

Family-based counseling that includes parent training or modeling should be included as part of a multicomponent weight management program that targets children ages 6 to 12 years. During the development of a multicomponent

treatment program for children ages 12 years and younger, the registered dietitian should advise the health care team on the advantages of incorporating parent training or modeling as part of the treatment program. Research studies including parent training or modeling as part of a multicomponent weight management program for children 12 years and younger showed positive changes in a child's weight status and adiposity.

**Strong**, Imperative

#### **Recommendation Strength Rationale**

- **Conclusion statements are Grade I**

#### **Pediatric Weight Management (PWM) Family Participation in Treating Pediatric Overweight in Children and Adolescents**

##### **PWM: Family Participation - Children 6 to 12 Years Old**

Parent/caregiver should be included in multicomponent pediatric weight management programs as an agent of change when treating children ages 6-12. A strong body of research indicates that including parents/caregivers as agents of change in the treatment of their child's overweight is associated with both short-term and longer term (>1 year) improvements in weight status. A more limited body of research indicates that treating 6 to 12-year-old children without parental participation is not effective.

**Strong**, Imperative

##### **PWM: Family Participation - Adolescents**

Parent/caregiver may be included in multicomponent pediatric weight management programs when treating adolescents. A limited body of research indicates that programs with or without parent/caregiver participation may be effective for improvements in weight status and adiposity in adolescents.

**Fair**, Conditional

##### **PWM: Family Participation - Treatment Format**

If parent/caregiver participation is included in child and adolescent weight management programs, health professionals should tailor the format (e.g., group versus individual format, parent/caregiver with child versus parent/caregiver and child separate, etc.) to meet individual, family, and program needs. Research does not show a clear superiority of one format versus another for parent/caregiver participation.

**Consensus**, Conditional

#### **Recommendation Strength Rationale**

- **Conclusion statements are Grades I, II, and III**

## **Pediatric Weight Management (PWM) Nutrition Counseling: Setting Weight Goals with Patient and Family**

### **PWM: Weight Goals**

Weight goals should be individualized for the child. Because of growth occurring within children and adolescents, the goal of pediatric weight management programs may be weight stabilization rather than weight loss. Research indicates that weight stabilization in children and adolescents may be associated with improvements in body mass index (BMI) and other measures of adiposity.

**Consensus**, Imperative

### **Recommendation Strength Rationale**

- **No evidence grade given**

## **Pediatric Weight Management (PWM) Coordination of Care in Pediatric Weight Management**

### **PWM: Coordination of Care**

Dietitian should collaborate with members of the healthcare team (as available) in planning and implementing behavior, physical activity, and adjunct therapy strategies. Effective multicomponent pediatric weight management interventions benefit from the diverse expertise of different healthcare professionals.

**Consensus**, Imperative

### **Recommendation Strength Rationale**

- **Conclusion statements are Grades I, II, and III**

## **Pediatric Weight Management (PWM) Decreasing Sedentary Behaviors in Children and Adolescents**

### **PWM: Decreasing Sedentary Behaviors - Children**

Children should be counseled to reduce or limit sedentary activities (e.g., TV, video games, "screen time"). Intervention research indicates that reducing sedentary activities may have both short term and longer term benefits in terms of pediatric overweight. Observational research also indicates that TV time may also be associated with increased consumption of energy dense foods.

**Fair**, Imperative

### **PWM: Decreasing Sedentary Behaviors - Adolescents**

Adolescents should be counseled to reduce or limit sedentary activities (e.g., TV, video games, "screen time"). Limited intervention research indicates that reducing sedentary activities may have both short term benefits in terms of overweight.

**Weak**, Imperative

#### **Recommendation Strength Rationale**

- **Conclusion statements are Grades II and III**

#### **Pediatric Weight Management (PWM) Physical Activity in the Treatment of Childhood and Adolescent Overweight**

##### **PWM: Physical Activity**

Physical activity should be included as part of a multicomponent pediatric weight management program. Research indicates that increasing physical activity as part of a multicomponent program results in significant improvements in weight status and/or body composition in children and adolescents.

**Strong**, Imperative

#### **Recommendation Strength Rationale**

- **Conclusion statement is Grade III**

#### **Pediatric Weight Management (PWM) Adjunct Therapies: Use of Weight Loss Medications in Treating Overweight in Adolescents**

##### **PWM: Collaboration with Health Care Team**

The dietitian should collaborate with the health care team regarding the use of weight loss medications as an adjunct therapy within a multicomponent pediatric weight management program for adolescents. Clinical outcomes are likely to be enhanced with the participation of a dietitian.

**Consensus**, Imperative

##### **PWM: Weight Loss Medication**

If a weight loss medication is selected as an adjunct therapy, then an over the counter or prescription gastrointestinal lipase inhibitor (e.g., orlistat) approved by the U.S. Food and Drug Administration (FDA) for use in adolescents may be recommended to treat overweight adolescents participating in a multicomponent pediatric weight management program. Research indicates that a gastrointestinal lipase inhibitor further improves weight status and body composition in some individuals within a multicomponent adolescent weight management program. However, the FDA has not studied or approved the use of this class of medication for children under the age of 12.

**Fair**, Conditional

**Recommendation Strength Rationale**

- **Conclusion statement is Grade II**

**Pediatric Weight Management (PWM) Adjunct Therapies: Weight Loss Surgery and Adolescent Overweight**

**PWM: Weight Loss Surgery**

Dietitians should collaborate with other members of the health care team regarding the appropriateness of weight loss surgery for severely overweight adolescents who have not achieved weight loss goals with less invasive weight loss methods and who meet specified criteria (see Conditions of Application in the original guideline document). Research indicates that for a subset of adolescents who meet the recommended criteria, weight loss surgery may be effective in bringing about significant short term and long term weight loss. Overweight children (< 13 years of age) are generally not considered to be appropriate candidates for weight loss surgery.

**Consensus**, Imperative

**Recommendation Strength Rationale**

- **No evidence grade given**

**Pediatric Weight Management (PWM) Treatment Format Options: Group versus Individual Intervention**

**PWM: Group Versus Individual Interventions**

Either group or individual nutrition intervention may be used as part of a multicomponent pediatric weight management program. Limited research that compares individual versus group format does not indicate differences in overall pediatric weight status. However, two studies suggest that some dietary outcome measures may be improved with an individual counseling format.

**Weak**, Imperative

**Recommendation Strength Rationale**

- **Conclusion statement is Grade III**

**Pediatric Weight Management (PWM) Optimal Length of Weight Management Therapy in Children and Adolescents**

**PWM: Optimal Length of Treatment**

During the intensive treatment phase, Medical Nutrition Therapy for pediatric overweight should last at least three months or until initial weight management goals are achieved. Because overweight is a chronic, often life-long, condition, it is critical that a weight management plan be implemented after the intensive phase of treatment. A greater frequency of contacts between the patient and practitioner may lead to more successful weight loss and maintenance.

**Consensus**, Imperative

- **No evidence grade given**

#### Definitions:

#### Conditional versus Imperative Recommendations

Recommendations can be worded as **conditional** or **imperative** statements. Conditional statements clearly define a specific situation, while imperative statements are broadly applicable to the target population without restraints on their pertinence. More specifically, a conditional recommendation can be stated in if/then terminology (e.g., If an individual does not eat food sources of omega-3 fatty acids, then 1g of EPA and DHA omega-3 fatty acid supplements *may* be recommended for secondary prevention).

In contrast, imperative recommendations "require," or "must," or "should achieve certain goals," but do not contain conditional text that would limit their applicability to specified circumstances. (e.g., Portion control should be included as part of a comprehensive weight management program. Portion control at meals and snacks results in reduced energy intake and weight loss).

#### Levels of Evidence

Strength of Evidence Elements	Grade I Good/Strong	Grade II Fair	Grade III Limited/Weak	Grade IV Expert Opinion Only	Grade V No Evidence Assigned
<b>Quality</b> <ul style="list-style-type: none"> <li>• Scientific rigor/validity</li> <li>• Considers design and execution</li> </ul>	Studies of strong design for question  Free from design flaws, bias and execution problems	Studies of strong design for question with minor methodological concerns  OR  Only studies of weaker study design for question	Studies of weak design for answering the question  OR  Inconclusive findings due to design flaws, bias or execution problems	No studies available  Conclusion based on usual practice, expert consensus, clinical experience, opinion, or extrapolation from basic research	No evidence that pertains to question being addressed
<b>Consistency</b>	Findings	Inconsistency	Unexplained	Conclusion	NA

<b>Strength of Evidence Elements</b>	<b>Grade I Good/Strong</b>	<b>Grade II Fair</b>	<b>Grade III Limited/Weak</b>	<b>Grade IV Expert Opinion Only</b>	<b>Grade V Grade I Assignment</b>
Of findings across studies	generally consistent in direction and size of effect or degree of association, and statistical significance with minor exceptions at most	among results of studies with strong design  OR  Consistency with minor exceptions across studies of weaker designs	inconsistency among results from different studies  OR  Single study unconfirmed by other studies	supported solely by statements of informed nutrition or medical commentators	
<b>Quantity</b> <ul style="list-style-type: none"> <li>Number of studies</li> <li>Number of subjects in studies</li> </ul>	One to several good quality studies  Large number of subjects studies  Studies with negative results having sufficiently large sample size for adequate statistical power	Several studies by independent investigators  Doubts about adequacy of sample size to avoid Type I and Type II error	Limited number of studies  Low number of subjects studies and/or inadequate sample size within studies	Unsubstantiated by published studies	Relevant studies have not been done
<b>Clinical Impact</b> <ul style="list-style-type: none"> <li>Importance of studies outcomes</li> <li>Magnitude of effect</li> </ul>	Studied outcome relates directly to the question  Size of effect is clinically meaningful  Significant (statistical) difference is large	Some doubt about the statistical or clinical significance of effect	Studies outcome is an intermediate outcome or surrogate for the true outcome of interest  OR  Size of effect is small or lacks statistical and/or clinical significance	Objective data unavailable	Indicate area for future research

Strength of Evidence Elements	Grade I Good/Strong	Grade II Fair	Grade III Limited/Weak	Grade IV Expert Opinion Only	Grade V Grade I Assignment
<b>Generalizability</b>  To population of interest	Studied population, intervention and outcomes are free from serious doubts about generalizability	Minor doubts about generalizability	Serious doubts about generalizability due to narrow or different study population, intervention or outcomes studied	Generalizability limited to scope of experience	NA

This grading system was based on the grading system from: Greer N, Mosser G, Logan G, Wagstrom Halaas G. *A practical approach to evidence grading. Jt Comm. J Qual Improv.* 2000; 26:700-712. In September 2004, The ADA Research Committee modified the grading system to this current version.

### Criteria for Recommendation Rating

Statement Rating	Definition	Implication for Practice
<b>Strong</b>	A <b>Strong</b> recommendation means that the workgroup believes that the benefits of the recommended approach clearly exceed the harms (or that the harms clearly exceed the benefits in the case of a strong negative recommendation), and that the quality of the supporting evidence is excellent/good (grade I or II)*. In some clearly identified circumstances, strong recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits strongly outweigh the harms.	Practitioners should follow a <b>Strong</b> recommendation unless a clear and compelling rationale for an alternative approach is present.
<b>Fair</b>	A <b>Fair</b> recommendation means that the workgroup believes that the benefits exceed the harms (or that the harms clearly exceed the benefits in the case of a negative recommendation), but the quality of evidence is not as strong (grade II or III)*. In some clearly identified circumstances,	Practitioners should generally follow a <b>Fair</b> recommendation but remain alert to new information and be sensitive to patient preferences.

Statement Rating	Definition	Implication for Practice
	recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits outweigh the harms.	
<b>Weak</b>	A <b>Weak</b> recommendation means that the quality of evidence that exists is suspect or that well-done studies (grade I, II, or III)* show little clear advantage to one approach versus another.	Practitioners should be cautious in deciding whether to follow a recommendation classified as <b>Weak</b> , and should exercise judgment and be alert to emerging publications that report evidence. Patient preference should have a substantial influencing role.
<b>Consensus</b>	A <b>Consensus</b> recommendation means that Expert opinion (grade IV)* supports the guideline recommendation even though the available scientific evidence did not present consistent results, or controlled trials were lacking.	Practitioners should be flexible in deciding whether to follow a recommendation classified <b>Consensus</b> , although they may set boundaries on alternatives. Patient preference should have a substantial influencing role.
<b>Insufficient Evidence</b>	An <b>Insufficient Evidence</b> recommendation means that there is both a lack of pertinent evidence (grade V)* and/or an unclear balance between benefits and harms.	Practitioners should feel little constraint in deciding whether to follow a recommendation labeled as <b>Insufficient Evidence</b> and should exercise judgment and be alert to emerging publications that report evidence that clarifies the balance of benefit versus harm. Patient preference should have a substantial influencing role.

\*Conclusion statements are assigned a grade based on the strength of the evidence. Grade I is good; grade II, fair; grade III, limited; grade IV signifies expert opinion only and grade V indicates that a grade is not assignable because there is no evidence to support or refute the conclusion. The evidence and these grades are considered when assigning a rating (Strong, Fair, Weak, Consensus, Insufficient Evidence - see chart above) to a recommendation.

Adapted by the American Dietetic Association from the American Academy of Pediatrics, Classifying Recommendations for Clinical Practice Guideline, Pediatrics. 2004;114;874-877.

## CLINICAL ALGORITHM(S)

The following algorithms are provided in the original guideline document:

- Pediatric Weight Management Screening
- Pediatric Weight Management: Nutrition Care Process

- Pediatric Weight Management: Nutrition Assessment
- Pediatric Weight Management: Nutrition Intervention

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

The guideline contains conclusion statements that are supported by evidence summaries and evidence worksheets. These resources summarize the important studies pertaining to the conclusion statement and provide the study details. Each study is given a quality rating (positive, negative, neutral) and the type of study is also identified.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

A priority aim and benefit of implementing the recommendations in this guideline would be to improve the number of children and adolescents who are able to meet their treatment goal, whether by reducing body weight, preventing weight gain, improving body composition, or maintaining weight loss.

### POTENTIAL HARMS

#### Overall Risk/Harm Considerations

Safety issues should be considered for each form of treatment recommended. Factors to consider when exploring treatment options include:

- Certain factors, such as age, socioeconomic status, cultural issues and disease conditions, need to be taken into consideration in the application of these guidelines.
- Clinical judgment in the application of these guidelines is necessary for patients with certain conditions such as pregnancy, HIV/AIDS, oncology treatment, severe psychiatric disorders and metabolic diseases such as Prader-Willi Syndrome.
- Application of this guideline to children less than 6 years of age is not appropriate except where indicated.
- Classification of obesity and determination of energy needs may not apply to certain individuals.
- Reduction of caloric intake may result in nutritional inadequacies. Therefore, special attention should be paid to maintaining adequate intake of vitamins and minerals.
- Intense physical activity in some individuals who are overweight or obese may contribute to disability or death, thus consultation with a physician prior to beginning an exercise program is recommended.

- Adverse side effects have been observed in some patients receiving pharmacotherapy for weight management. Only those drugs approved by the FDA for long-term use in a pediatric population have data to support long-term safety and efficacy.
- Weight loss can produce adverse effects and regular monitoring by health professionals is advised.

## **Recommendation Specific Risks/Harms**

### **Energy Restricted Diets**

- Children and adolescents on energy restricted diets should be monitored for adequate micronutrient intake as well as adequate growth and development.

### **Very Low Carbohydrate Diet**

- Electrolyte imbalance, especially hypokalemia, can be a side effect of very low carbohydrate diet especially when an adolescent is in a state of ketoacidosis.
- Electrolytes should be monitored and potassium should be supplemented through dietary supplements when this diet is implemented.
- Constipation may occur secondary to an inadequate fiber and fluid intakes.
- A daily multivitamin supplements containing 100% of the daily reference intake (DRI) should be prescribed with the diet to ensure adequate vitamin and mineral intake especially since fruit, vegetable and dairy consumption may be limited.

### **Protein Sparing Modified Fast Diets (PSMF)**

- Electrolyte imbalance, especially hypokalemia, can be a side effect of the PSMF.
- Electrolytes should be monitored and potassium should be supplemented through dietary supplements when this diet is implemented.
- A daily multivitamin supplements containing 100% of the DRI should be prescribed with the diet to ensure adequate vitamin and mineral intake especially since fruit, vegetable and dairy consumption may be limited.
- Adequate fluid intake should be encouraged to prevent dehydration.

### **Physical Activity**

- Intense physical activity in some overweight and obese individuals may contribute to disability or death.
- Consultation with a physician and exercise specialist prior to beginning an exercise program is needed.

### **Gastrointestinal Lipase Inhibitor**

- Adverse effects from the use of a gastrointestinal lipase inhibitor were determined by the intake level of dietary fat (the higher the intake of dietary fat the higher the likelihood of adverse effects). Adverse effects generally improved over time. Commonly occurring adverse effects include:
  - Malabsorption of fat soluble vitamins

- Increased defecation
- Oily spotting on clothing
- Soft stools
- Increased flatus
- Fatty/oily stools
- Fecal incontinence

### **Weight Loss Surgery**

- Surgical complications
- Micronutrient deficiencies (e.g., vitamin D for African Americans, vitamin K)

### **Optimal Length of Weight Management Therapy**

- Pediatric weight management can affect growth, development, metabolic parameters and sometimes produce unintended effects such as excessive weight loss and nutritional deficiencies; therefore, continued monitoring by health care professionals is warranted.

## **CONTRAINDICATIONS**

### **CONTRAINDICATIONS**

Clinical judgment is crucial in the application of this guideline. Careful consideration should be given to certain conditions, such as pregnancy, HIV/AIDS, oncology treatment, severe psychiatric disorders, and metabolic diseases such as Prader-Willi Syndrome.

## **QUALIFYING STATEMENTS**

### **QUALIFYING STATEMENTS**

- American Dietetic Association (ADA) evidence-based nutrition practice guidelines are intended as a general framework for care of patients/clients with particular health problems and not for application to the treatment of all patients/clients in all circumstances. Complicating conditions such as severe illness or comorbidity, for example, may require different treatments or considerations. The independent skill and judgment of the registered dietitian or referring health care provider must always determine treatment decisions. Protocols/guides for practices are provided with the express understanding that they do not establish or specify particular standards of care for legal, medical, or other purposes.
- While the guideline represents a statement of best practice based on the latest available evidence at the time of publishing, they are not intended to overrule professional judgment. Rather, they may be viewed as a relative constraint on individual clinician discretion in a particular clinical circumstance.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

The publication of this guideline is an integral part of the plans for getting the American Dietetic Association Medical Nutrition Therapy (ADA MNT) evidence-based recommendations on pediatric weight management to all dietetics practitioners engaged in, teaching about, or researching weight management as quickly as possible. National implementation workshops at various sites around the country and during the ADA Food Nutrition Conference Expo (FNCE) are planned. Additionally, there are recommended dissemination and adoption strategies for local use of the *ADA Pediatric Weight Management Evidence-Based Nutrition Practice Guideline*.

The guideline development team recommended multi-faceted strategies to disseminate the guideline and encourage its implementation. Management support and learning through social influence are likely to be effective in implementing guidelines in dietetic practice. However, additional interventions may be needed to achieve real change in practice routines.

Implementation of the Pediatric Weight Management Guideline will be achieved by announcement at professional events, presentations and training. Some strategies include:

- **National and Local Events** – State dietetic association meetings, an ADA House of Delegates training session and media coverage will help promote the guideline
- **Local Feedback Adaptation** – Presentation by members of the work group at peer review meetings and opportunities for continuing education units (CEUs) for courses completed
- **Education Initiatives** – The guideline and supplementary resources are freely available for use in the education and training of dietetic interns and students in approved Commission on Accreditation of Dietetics Education (CADE) programs
- **Champions** – Local champions have been identified and expert members of the guideline team will prepare articles for publications. Resources are provided that include PowerPoint presentations, full guidelines, and pre-prepared case studies
- **Practical Tools** – Some of the tools that will be developed to help implement the guideline include specially designed resources such as clinical algorithms, slide presentation(s), training, and toolkits

Specific distribution strategies include:

Publication in Full – The guideline will be available electronically at the ADA Evidence Analysis Library website ([www.adaevidencelibrary.com](http://www.adaevidencelibrary.com)) and will be announced to all the ADA dietetic practice groups and affiliates. The ADA website will also provide downloadable supporting information.

### IMPLEMENTATION TOOLS

## Clinical Algorithm

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

# INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

## IOM CARE NEED

Getting Better  
Living with Illness

## IOM DOMAIN

Effectiveness  
Patient-centeredness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

American Dietetic Association (ADA). Pediatric weight management evidence-based nutrition practice guideline. Chicago (IL): American Dietetic Association (ADA); 2007 Jun. Various p. [458 references]

### ADAPTATION

The levels of evidence were based on the grading system from: Greer N, Mosser G, Logan G, Wagstrom Halaas G. *A practical approach to evidence grading. Jt Comm. J Qual Improv.* 2000; 26:700-712. In September 2004, The American Dietetic Association (ADA) Research Committee modified the grading system to this current version.

The grades of recommendation were adapted by the American Dietetic Association (ADA) from the American Academy of Pediatrics, *Classifying Recommendations for Clinical Practice Guideline, Pediatrics.* 2004;114;874-877.

In addition, recommendations for the determination of energy expenditure and energy requirements for children and adolescents draw from the 2005 US Institutes of Medicine *Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids (Macronutrients)* (available online at <http://www.nap.edu/catalog/10490.html> --especially chapter 5 and Appendix I).

### DATE RELEASED

2007 Jun

### GUIDELINE DEVELOPER(S)

American Dietetic Association - Professional Association

## **SOURCE(S) OF FUNDING**

American Dietetic Association

## **GUIDELINE COMMITTEE**

Pediatric Weight Management Treatment Evidence-Based Guideline Workgroup

Family Nutrition and Physical Activity Work Group

ADA Pediatric Weight Management Position Paper Work Group

## **COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

*Pediatric Weight Management (Treatment) Workgroup Members:* Christina Biesemeier MS RD LD FADA, *Chair*; Joyce Bittle PhD, RD, LDN; Nancy Copperman, MS, RD, CND; Heather Holden Med RD LD CDE; Shelly Kirk PhD, RD, LD; Aida Miles, MMSc, RD, LD; Lorrene Ritchie PhD, RD; Denise Sofka MPH, RD

*Family Nutrition and Physical Activity Workgroup Members:* Pat Crawford DrPH, RD; Dana Gerstein MPH, RD; Karen Peterson PhD, RD; Lorrene Ritchie PhD, RD; Greg Welk PhD

*Position Paper Workgroup Authors:* Lorrene D. Ritchie PhD, RD, Center for Weight and Health, University of California, Berkeley, CA; Patricia B. Crawford DrPH, RD, Center for Weight and Health, University of California, Berkeley, CA; Deanna M. Hoelscher PhD, RD, University of Texas School of Public Health, Houston, TX; Melinda S. Sothorn PhD, School of Public Health, Louisiana State University Health Sciences Center, New Orleans, LA

## **FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

In the interest of full disclosure, ADA has adopted the policy of revealing relationships workgroup members have with companies that sell products or services that are relevant to this topic. Workgroup members are required to disclose potential conflicts of interest by completing the ADA Conflict of Interest Form. It should not be assumed that these financial interests will have an adverse impact on the content, but they are noted here to fully inform readers.

Workgroup members have disclosed the following:

Nancy M. Copperman, received Honorarium for the Certificate of Training in Child and Adolescent Weight Management Course.

Heather S. Holden, currently holds memberships with the American Diabetes Association and the American Association of Diabetes Educators.

Lorrene Ritchie, received Grants/Research Support Foundation Iacocca Foundation, Atkins Foundation, Gilbert

## **GUIDELINE STATUS**

This is the current release of the guideline.

The guideline will undergo a complete revision every three to five years.

## **GUIDELINE AVAILABILITY**

Electronic copies: Available from the [American Dietetic Association Web site](#).

## **AVAILABILITY OF COMPANION DOCUMENTS**

The following is available:

- Executive summary of recommendations. Chicago (IL): American Dietetic Association; April 2008. Available from the [American Dietetic Association Web site](#).

## **PATIENT RESOURCES**

None available

## **NGC STATUS**

This NGC summary was completed by ECRI Institute on November 10, 2008. The information was verified by the guideline developer on December 9, 2008.

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When modifying the guidelines for local circumstances, significant departures from these comprehensive guidelines should be fully documented and the reasons for the differences explicitly detailed.

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